

ABSTRACT OF THE DISCLOSURE

- A method for forming a database to route a data packet from a plurality of prefixes and a method for routing and a router using the method thereof are disclosed. The method for forming the database including the steps of:
- 5 forming a main-table by aligning the prefixes into a reference length, storing information about the prefixes when the length of the prefixes is shorter than the reference length, and storing connection information about a table from which information about the prefixes can be obtained when the length of the prefixes is longer than the reference length at an entry of the main-table, and
 - 10 forming a sub-table with respect to prefixes having longer length than the reference length by calculating a distance between a base point and the respective prefixes and arraying nodes having a same distance, the base point being a node indicated by the connection information.